

# KSP-1000

INSTRUCTION MANUAL

KENWOOD

## For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model \_\_\_\_\_ Serial Number \_\_\_\_\_

## Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

## Before applying power

### Important!

#### U.S.A.

Units shipped to the U.S.A. are designed for operation on 120 volts AC only.

## WARNING:

TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

## Features and specifications



### Features

- Up to 18 satellite positions can be memorized.
- Protection system using EAST/WEST limit feature.
- PARENTAL LOCK system.
- Remote control is possible in combination with the stereo satellite receiver KENWOOD KSR-1000.
- Detection of position setting completion and of abnormality by buzzer.
- With the built-in microprocessor, the pulses from the actuator can be counted up to 9999.
- Various kinds safety protection system and position correction system by the microprocessor and circuit breaker.

### Specifications

Applicable actuator .....	Rated DC36V, below 4 A Position detection Pulse detection system Detection circuit: DC 5V Optional KENWOOD KSA-1000 recommended
Power consumption.....	At normal operation: 0.08 A/120 V, 10 W, 60 Hz At maximum: 1.5 A/120 V, 150 W, 60 Hz
Memory backup .....	Approx. 1 week at power off/low
Accessories .....	Remote control cable (1.5 m) x 1, Short plug x 1
Dimensions (W x D x H).....	222 x 232 x 70 mm (8-3/4" x 9-1/8" x 2-3/4")
Weight (Net).....	4.4 kg (9.7 lb)

## Safety precautions

<b>CAUTION</b> RISK OF ELECTRIC SHOCK. DO NOT OPEN	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## System connections

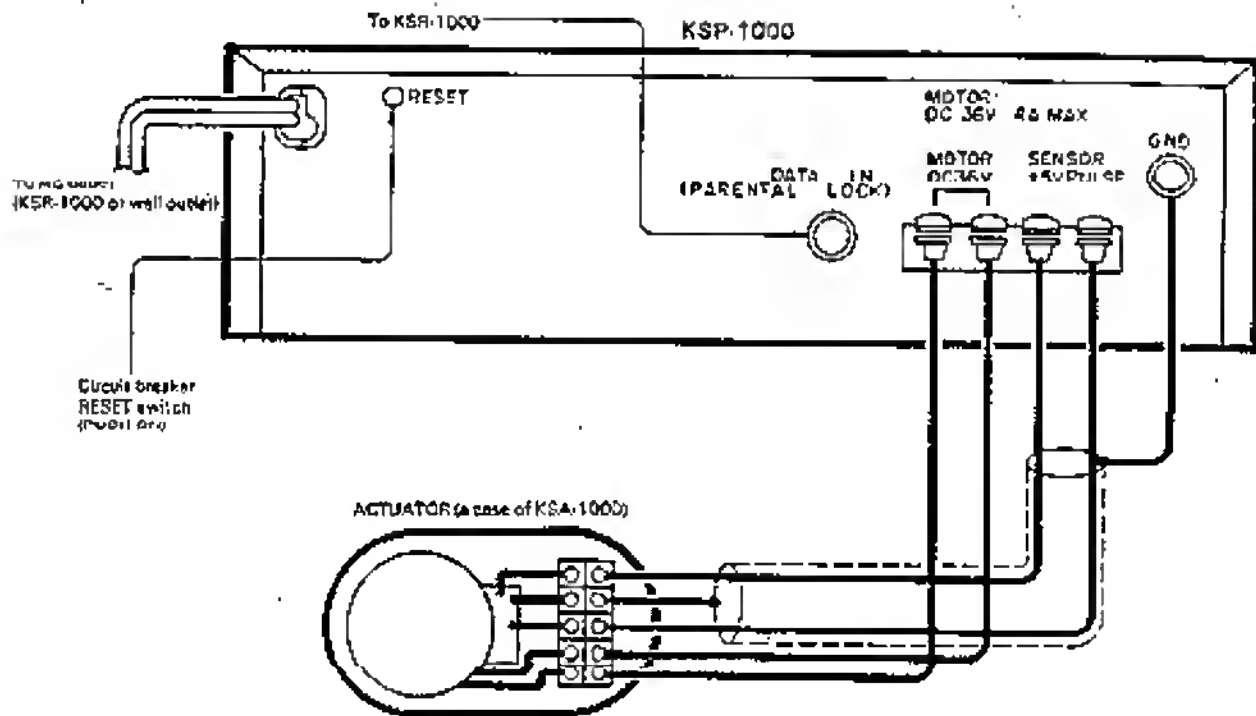


Fig. 1

### Note:

Connection polarization of the motor cable varies according to the installing direction of the actuator (refer to "Connecting the motor drive cables").

### Connecting the actuator

This unit is not equipped with an actuator. Obtain the optional KENWOOD ACTUATOR KSA-1000 or an equivalent which uses 36 V pulse detection system. Connect the cables as shown.

### Material and length of cables to be used

- a. For motors..... 2
- |             |      |
|-------------|------|
| ~ 120'      | # 18 |
| 121' ~ 200' | # 16 |
| 201' ~ 330' | # 14 |
| 331' ~ 450' | # 12 |
- b. For control pulse sensor..... 2-core shield
- |        |      |
|--------|------|
| ~ 450' | # 22 |
|--------|------|

### Connecting the motor drive cables (with optional KSA-1000)

When the extended director of the actuator is WEST, connect the cables as shown in Fig. 1.  
When the extended direction of the actuator is EAST, connect the cables in the reverse way to the connection shown in Fig. 1. [Cross the motor cable wiring.]

When installing the cover after completion of the actuator wiring, be sure to install the gasket and to tighten the screws fully.

Apply waterproofing to the cable port.

### Connecting the power cord

Connect the power cord to an AC outlet of 120 V, 60 Hz. When the power cord is disconnected or the power is not supplied for more than 1 week, the preset memory contents may be erased.

### Connecting KSR-1000

This unit can also be controlled by the optional KENWOOD STEREO SATELLITE RECEIVER KSR-1000. In this case, connect the DATA IN jack of this unit to the KSR-1000 with the supplied remote control cable. The length of the supplied cable is 0.45 feet. However, it can be extended up to 150 feet using a 2-core shield cable. If the length of the remote control cable exceeds 150 feet, correct remote control operation cannot be assured.

### Note:

When the KSR-1000 is not in use, be sure to insert the short pin into the DATA IN jack. If the short pin is not inserted, the unit does not function because of the parental function. When the KSR-1000 is connected and the parental function is activated with the KSR-1000, this unit cannot be operated. When the power cord of the KSR-1000 is disconnected, the unit also cannot be operated.

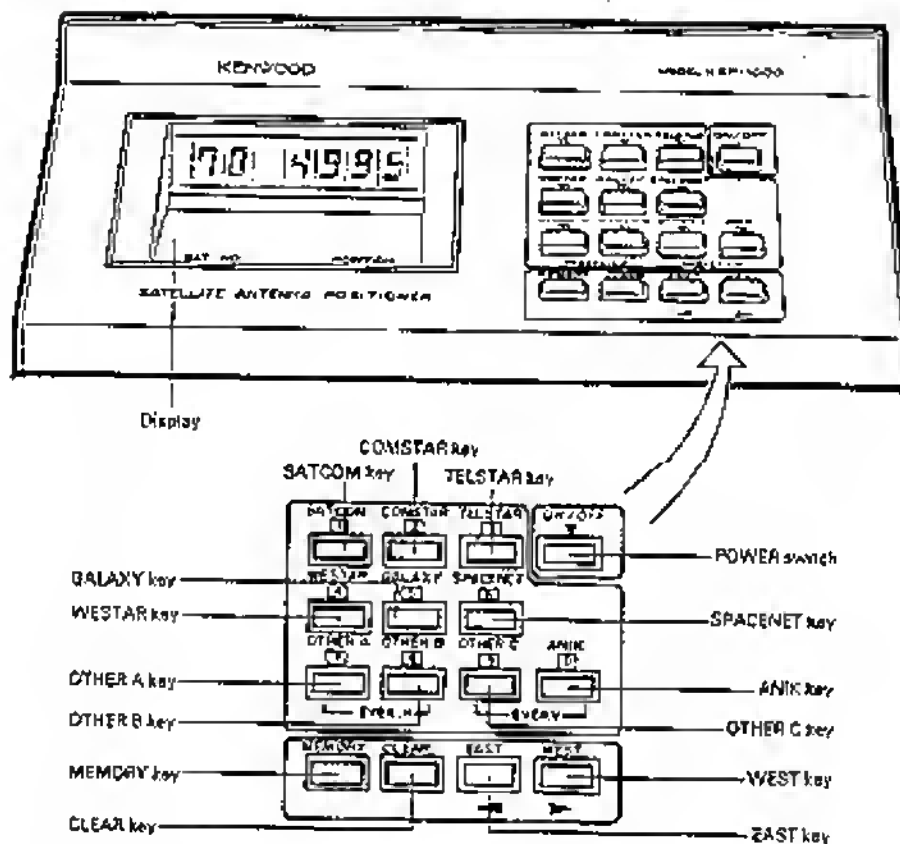


Fig. 2

## Operating instructions

### PARENTAL LOCK system

- To keep the unit out of reach of children, the unit has a feature by which all the key inputs can be made void by disconnecting the DATA IN jack. Therefore, when the unit is not used in combination with other systems, be sure to first connect the supplied short plug into the DATA IN jack on the rear panel.
- When the unit is used in combination with the optional satellite receiver KSR-1000, connect the ANTENNA DATA OUT jack of KSR-1000 on the rear panel and the DATA IN jack of the unit with the supplied remote control cable. With this connection, the PARENTAL LOCK system of the KSR-1000 is applied to the unit. To lock the antenna only, without locking KSR-1000, disconnect the remote control cable.

### Initial setting

- When the power is first supplied, the position is "5000". Set the EAST/WEST limit.
  - EAST/WEST limit setting  
Be sure to set both of EAST/WEST limits.
- (1) EAST limit setting: When the EAST key is pressed with the CLEAR key kept pressed, "EAST" (flashes) is displayed to indicate the EAST limit is being set.
  - (2) Observing the dish, press the EAST key and move the actuator in the direction of EAST so that the actuator does not reach the end. Check the furthest EAST satellite broadcasting is received, and set the area around the furthest EAST satellite broadcasting reception point as the limit.

- (3) Setting the limit is possible by pressing the EAST key with the MEMORY key pressed. At this time, "End" is displayed to indicate that the east limit is set. (When the WEST key is pressed with the CLEAR key pressed, the display shows "EAST" and the unit stands by for west limit setting.)
- (4) Next, set the WEST limit.  
Press the WEST key while pressing the CLEAR key. The display shows "WEST" and WEST limit setting is possible.
- (5) For WEST limit setting, perform the same procedure as for EAST limit setting. When the WEST limit setting is completed, the display shows END to indicate both EAST and WEST limit settings are completed.

#### Note 1:

Be sure to perform the limit setting first. When the limit position is changed, the memory contents are cleared.

#### Note 2:

KSR-1000's SCAN feature is very useful for searching the satellite.

#### How to activate the SCAN feature of KSR-1000

- Set KSR-1000 to SCAN mode.
- Turn the dish to EAST ward or WEST ward using KSR-1000.
- As the dish approaches the satellite, the picture can be momentarily seen on the TV screen. When the picture appears on the screen, stop the dish.

- d. Set the KSR-1000 to SCAN mode, and search the picture sending transponder with the TRANSPONDER control.
- e. Perform fine adjustment with KSP-1000 so the best picture is received.

#### Note 3:

When the actuator is moved by pressing the EAST or WEST key after the EAST and WEST limit settings are completed and the actuator reaches the limit position, the SAT. NO. display shows END and the beep sound is heard twice to indicate the limit position is reached.

#### Note 4:

When the EAST/WEST limit is released, the position display shows "5000".

### Selecting and storing satellites

Up to 18 satellite positions can be stored in the unit. Search for the best position of the satellite in the direction specified in Note 2 above.

**Memorizing satellites:** When the best position is located, press the MEMORY key. The SAT. NO. display shows "0000" (flashes) to indicate the memory is possible.

Insert the 2-digit number corresponding to the satellite number (Ex. SATCOM F3: **[1]** - **[3]**) using the satellite selection keys.

#### Note:

When you try to store the 19th satellite in the unit, the display flashes to indicate overflow of the unit's memory capacity.

At this time, perform the memory clear procedure (refer to "Clearing the stored memory" below.)

### Clearing the stored memory

Recall the stored satellite to be cleared with the satellite selection keys. Press the CLEAR key with the MEMORY key pressed. The display momentarily flashes and memory of the satellite is cleared.

### Recalling the stored satellites

- a. The stored memory of the satellite position can be recalled by inputting the 2-digit satellite number using the satellite selection keys (Ex. SATCOM F3: **[1]** - **[3]**).

When the satellite is recalled, the actuator automatically moves to the stored position. When the actuator reaches the stored position, the beep sound informs the operator that the stored position is reached.

- b. When the satellite number input by the 2-digit number is not stored, the display indicates ERROR.

- c. When the unit is used in combination with KSR-1000, setting the satellite name with KSR-1000 automatically moves the unit's actuator to the satellite's position. At this time, the POWER ON/OFF and the PARENTAL LOCK system can be remotely controlled by stereo satellite receiver KSR-1000.

### Safety protection systems

In the event the actuator does not operate normally (such as when the actuator is out of order, the connecting cable is disconnected or broken, or the actuator moves to the end for some reason, etc.), the beep sound is heard concurrently and the motor output is suspended by the unit's microprocessor-controlled protection system. At this time, eliminate the causes of trouble and the unit can be operated normally.

### Re-synch feature

Just after repairing the faulty actuator or when the actuator installation part worn out, the best position sometimes may not correspond to the stored position (the best positions of all the satellites are uniformly off the stored positions). At this time, the unit's re-synch feature is very useful to return the stored positions to the normal positions without storing the correct memories again.

### How to activate the re-synch feature

- (a) Select one of the stored satellites.

Example: Display

**13** **5067**

The picture is not clear.

- (b) Move the actuator to the best position for the picture using the EAST or WEST key.

Example: Display

**5068**

**5069**

**5070**

- (c) When the best position is reached, press the EAST or WEST key with the MEMORY key pressed.

The display becomes like the illustration shown below.

Example: Display

**13** **5067**

### Circuit breaker

When the output cable is short-circuited or an abnormal load is applied to the actuator motor, the circuit breaker releases the motor drive to protect the inner circuit and the power supply stops.

At this time, eliminate the causes of trouble and press the RESET button on the rear panel to set the unit to normal operation mode.

If the unit does not function correctly, check the following. If the trouble still persists, contact your dealer.

Symptom	Cause	Remedy
<ul style="list-style-type: none"> <li>○ Key is not possible.</li> </ul>	<ul style="list-style-type: none"> <li>○ Power cord is disconnected.</li> <li>○ The circuit breaker is operated.</li> <li>○ Short pin or remote control cable is disconnected.</li> <li>○ The power cord of the KSR-1000 is disconnected.</li> <li>○ The parental feature is operated with the KSR-1000.</li> </ul>	<ul style="list-style-type: none"> <li>○ Connect the power cord.</li> <li>○ Press the RESET button on the rear panel.</li> <li>○ Connect securely.</li> <li>○ 1. Connect the power cord of the KSR-1000</li> <li>○ 2. Connect the short pin instead of the remote control cable.</li> <li>○ Release parental mode or connect the short pin.</li> </ul>
<ul style="list-style-type: none"> <li>○ The circuit breaker functions.</li> </ul>	<ul style="list-style-type: none"> <li>○ The motor cable is short circuited.</li> <li>○ The actuator is over-loaded.</li> </ul>	<ul style="list-style-type: none"> <li>○ Check the output jacks, actuator, motor cable, etc. for short circuit and press the RESET button.</li> <li>○ Isolate the cause and press the RESET button.</li> </ul>
<ul style="list-style-type: none"> <li>○ When the EAST or WEST key is operated, a beep signal sounds, but the antenna does not move.</li> </ul>	<ul style="list-style-type: none"> <li>○ Inferior connection of the jacks.</li> <li>○ Broken cable.</li> <li>○ Defective actuator.</li> <li>○ The unit is set to the mechanical limit position.</li> </ul>	<ul style="list-style-type: none"> <li>○ Connect the unit and actuator securely.</li> <li>○ Check the connection for incorrect wiring or broken cable.</li> <li>○ Replace.</li> <li>○ Reset the limit position.</li> </ul>
<ul style="list-style-type: none"> <li>○ When the No. is input, the error indication appears.</li> </ul>	<ul style="list-style-type: none"> <li>○ Not memorized.</li> <li>○ Memory erased.</li> </ul>	<ul style="list-style-type: none"> <li>○ The input satellite No. is not memorized.</li> <li>○ Store the satellite No.</li> <li>○ 1. When the power cord is disconnected or power outage lasts for more than 1 week, the memory contents are erased. Rememorize.</li> <li>○ 2. When the limit position is changed, the memory contents are erased. Rememorize.</li> </ul>

This unit contains microcomputers. External electronic noise or interference could cause malfunctioning. In such cases, unplug the power cord, then plug it in again and check the functions.